the journal

the journal / massachusetts college of art / fall 1975

Force Lines

The poem seizes lines of force
binds them in a knot
frozen fast:
A word
well placed on page
evokes a mistress, empire,
fallings out, decline, and death.
A knot, doubled trebled and based
in clash of Euclidean brick
with random bend,
forces
paid attention
to the outward spread
of lines toward the final twist
when space and time curve back upon themselves
and black holes suck fleeing thoughts
and jam them, pack them, funnel
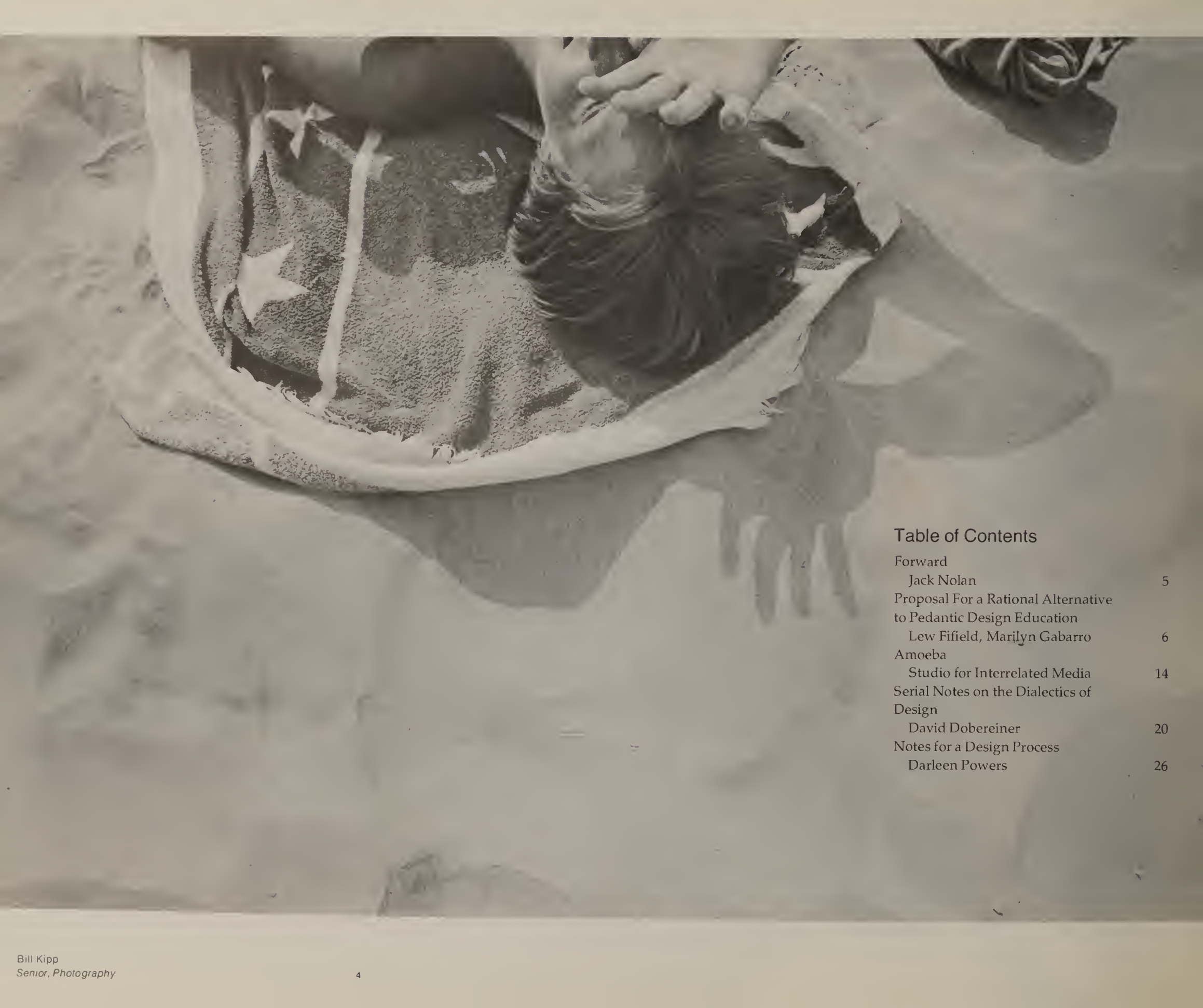the force lines down
to Not.

C. P. Campbell
5/20/75

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forward

editorial

During mid-August a student's mind often anticipates September as a new beginning. Frequently this generates a high level of creative energies—some finding their way to productive stages while the rest remain unfinished dreams.

It was during this time that The Journal proceeded into a secondary stage.

I've often heard casual, sometimes caustic remarks about our first issue, its lack of uniformity, over-dominance of the Design Division, selective representation; but we worked to the best of our ability with the materials available.

Perhaps if the critics realized the tremendous pressure under which we work in order to get the issues ready for release, and the difficulties in collecting art as well as volunteers, we might find the support to turn out even greater issues.

The constant pressure peaks and lows and the work gets done sooner or later. Goals are frequently revised, variations and alternatives are almost limitless; *our desires live on* —sometimes reaching that illustrious productive plateau; sometimes remaining simply small pieces of unanswered dreams.

Marsha H. Levine
Co-Editor
December 4, 1975

What kind of place is this?
(An active place.)
At home with disorder and disarray.
Chipped brick, layered paint, scarred plaster.
A well-worked arena, used and reused.
Traces of countless projects, mock-up, construction.
Restless spread of studios, claiming closet and cranny.
(Remove a wall, shift some plumbing, add some wiring.)
The endless demands
more material—more tools—more space.
Hardly a model facility; models are for show.
Not a showplace (a workplace).

Tom Scally
Senior, Photography

What happens here?
(Many things.)
A thousand students; a thousand fires.
Foundry or film; inked screen and video image; the drama of
molten glass to the discipline of modular structure.
Each a challenge life-sufficient.
Artist? Designer? Teacher?
The best must include all three; consider the combinations.
To solve a new problem, serve a new public.
(To serve a new public, solve a new problem.)
Environment
Exhibition
Performance tour
Production design
Team effort's discipline; the healthy abrasion of the real world.
Partly a matter of scale: large enough to offer options, small
enough to respond.
But mostly, respect for those inner fires.
Then things happen (many things).

Jack Nolan
November, 1975

proposal for
a rational alternative

An improved approach to design education has been discussed again and again. One major theme seems to be recurrent: It is difficult to institutionalize creativity, and harder still to develop hypothetical problems that truly reproduce real design situations.

Professionals denounce the poor quality of the design education which they received in school, and criticize today's young designers who, seeking employment, approach them with a crippling lack of basic skills and conceptual problem solving ability. The profession itself seems unable to agree on what makes a good designer, and, for the most part, is reluctant to participate in the educational process— primarily because the academic institutions do not presently permit or provide a practical vehicle for professional involvement.

*Current Approaches to Design and
Art Education*
Most art and design schools are organized on a conventional academic model with a major emphasis on the accumulation of credits rather than mastery of craft and the development of conceptual skills. Undergraduate programs are typically based on a 3-credit module with a requirement of 132 credits phased over four years

required for graduation. Under this system a student must pass all required courses, however marginally. Included in the curriculum are: a core program for the first year or two and then a major in the areas of 1) art education, 2) design, 3) fine arts, 4) crafts, 5) media and/or performing arts.

A sample curriculum model would be:

Core Program	24 credits
Critical Studies	42
Departmental Studies	33-36
Concentrations	18
Electives	15
	132 credits

When a student has designated his major area of study, it is hoped that an advisor will assist him in program choices and maintain a continuing review of his status and progress throughout the student's academic tenure.

It is expected that a talented student will succeed in spite of the obstacles placed before him. Through a personal determination to succeed he will emerge triumphant from any program. Unfortunately very few students make it; the rest become frustrated, sometimes sensitive, tradesmen.

Paralleling the academic curriculum system described above is another current educational approach: the open

to pedantic design education

by lew fifield *assistant professor*
marilyn gabarro *instructor*

curriculum process. This non-system has no common structure and leaves the student largely on his own, with little advice or knowledge of future professional needs. The student selects a broad menu of design and academic courses, none of which are necessarily related. The philosophy inherent in this system is "You'll find your own way when you're ready." If it is true, as some say, that design is a basic talent which will develop despite the presence of any number of drawbacks as long as motivation is present—then this may be a good system.

Current Problems in Design Education
Several problems in the existing design education system give rise to consideration of an alternative system:

1. The B.F.A. in design is presently a license to go out in the field and learn. It is not a guarantee of professional competency.
2. Although token allowances have been made for the peculiarities of individual programs, no practicum is required in the design field as part of professional certification.
3. All students are trained to become designers and art directors, although many are neither emotionally nor aesthetically suited—and fail. Those who drop out of the design program often go into craft and production work. But even they are usually not adequately trained in design to work effectively with designers—who are equally lacking in production training.
4. Professionals in the field are seldom involved in the educational process during the regular daytime schedule because of pressing commitments to clients, as well as economic considerations.
5. Problems assigned to students in school are often lacking in "real world" limitations, or client considerations.
6. Design is usually taught on a touch-all-the-bases and hope-everything's-covered approach, assuming that the needs of all students are satisfied.
7. Conceptual and creative time are usually squeezed out by the pressure to produce finished design work. The student finds little space in the program to pursue individuality.
8. The production end of the design education process is equally inadequate. We seldom "waste time" on production problems, leaving them instead to the stat houses, printers and typographers, designing in the limbo which that kind of ignorance permits.
9. Exposure to practicing professionals in the areas of production, design or research exists only at the guest lecturer level—when they are available.

Historic Precedents
Originally, all training in art and production was based on an apprentice system. Currently the classroom/lecture model, which has proven effective in academic studies, is used in design training as well.
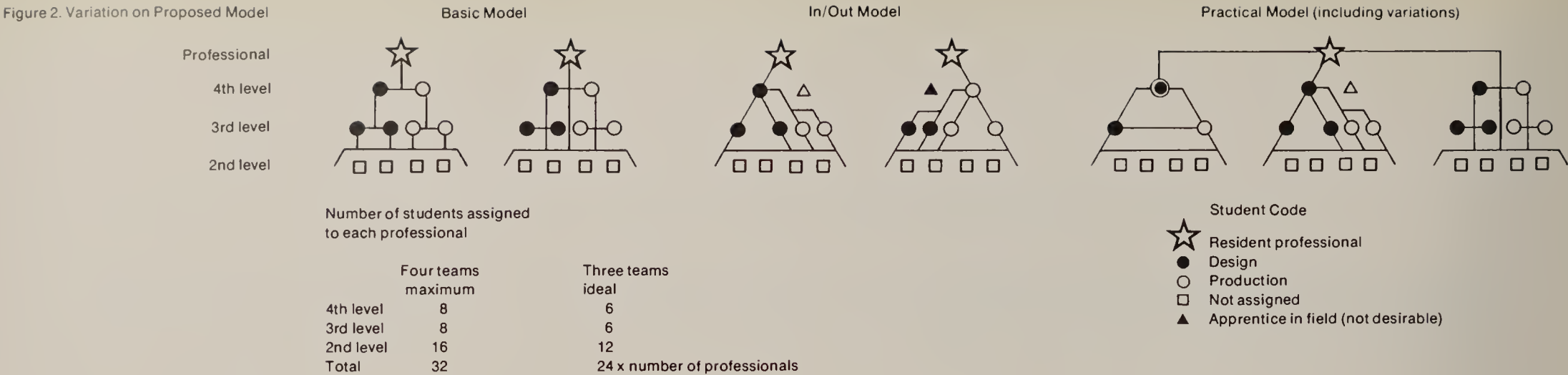
Design and production are now taught in separate institutions, and those trained in one are often not competent in the other. The Bauhaus attempted to bring the two together in the 1920's, placing equal emphasis on craft and form. Each course was taught by a Master of Craft and a Master of Form until the Bauhaus had produced its own teachers trained in both areas. We propose a similar dual system at the foundation level of design education, with the student eventually choosing either design or production having gained a basic understanding of both.

Proposal
The Bauhaus was a departure from traditional academia, and its precepts have spread around the world. No one institution has ever recreated its total commitment to practical design education. We shall not either; we propose a new model for design education *within* the academic structure. We propose a Bauhaus-like foundation year with equal emphasis on craft and form—after which the student would move into the alternative program.

Figure 2. Variation on Proposed Model

Basic Model — In/Out Model — Practical Model (including variations)

Professional
4th level
3rd level
2nd level

Number of students assigned
to each professional

	Four teams maximum	Three teams ideal
4th level	8	6
3rd level	8	6
2nd level	16	12
Total	32	24 x number of professionals

Student Code

☆ Resident professional
● Design
○ Production
□ Not assigned
▲ Apprentice in field (not desirable)

Offerings

*The reverend voice harrumphs, then intones
the doxologic phrase: the blessings flow
while outside, Transit bus diesel drones—
fares drop in boxes; dimes and quarters go
for gods grace or a short ride. The crones
in stickpin hats nod, sniff, and throw
pinched glances with the coin: these loans
help float the Enterprise. The undertow
of clinks, rumbles, sighs, drops through my ears
like fares and bumps me back again to earth
from Tiffany's Abraham, holding up the knife,
the wrath still unallayed. The chandelier
from which in mind I swing from death to birth
pauses over pulpit, eye of strife.*

C. P. Campbell
5/19-20/75

Traditional academic courses, conceptual, visualization and experimental studies would be concentrated in one semester at each achievement level to broaden the conceptual aspects of design, communication and humanities.

In the alternate semester of each achievement level we would implement a collaborative apprenticeship system. (see figure 1)

We see a need for an alternative to the traditional design educator who is generally an educator first and a designer second, the practicing designer who is willing to sandwich a course or two into a hectic professional practice as a part-time educator, and the professional who participates in formal seminars as they are sporadically organized. The alternative we favor, yet untried as far as we know, is the recruitment of professionals as *full-time* instructors for a period of one semester.

Alternative System

We propose that these "teaching professionals" would maintain their practices—on a limited basis—by establishing a working environment at the institution for design education with collaboratives of students serving as apprentices for one semester each year. The professional would continue

to bill clients on the regular basis for completed assignments. As compensation for the reduced billings which would very likely occur, the institution would pay each professional a stipend equal to one-half a full-time educator's salary; one full-time position would essentially be divided between two professionals.

Each teaching professional would be responsible for up to four student collaborative groups. Each collaborative would be made up of one or two fourth level students, two or more third level students and no more than four second level students. (see figure 2)

The term "level" is used here instead of "senior," "junior," "sophomore," etc. because we propose that students be advanced by achievement levels based on their ability and performance in the design collaborative—not simply the passing of a given number of courses. Evaluations at each level would be by review committees comprised of resident faculty, including the collaborative professionals and other outside professionals. Students would display their work, make a brief presentation and respond to questions by the committee. The committee would then make written recommendations as to the direction and status of the student. Admittedly this is a more
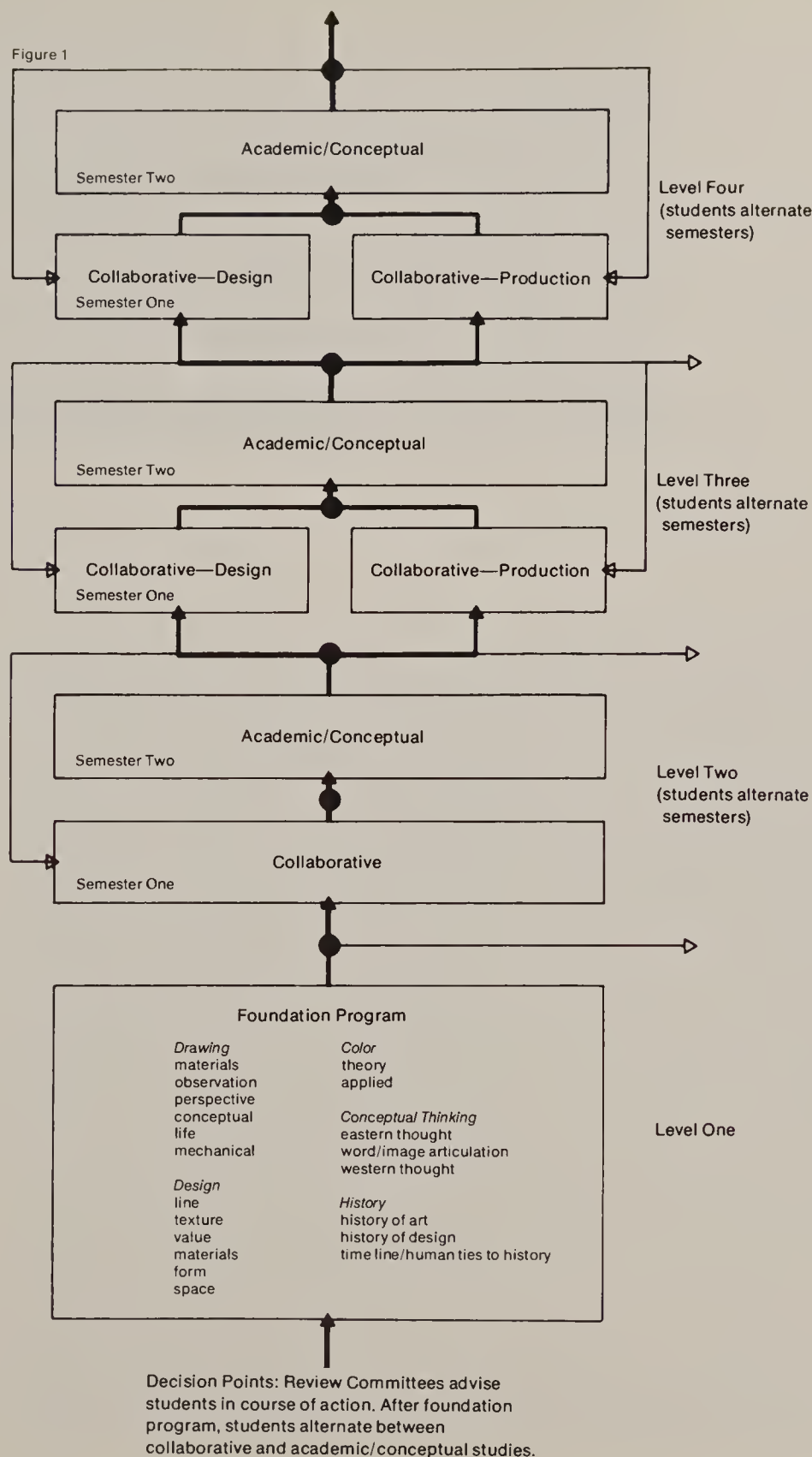
complicated review process, but students deserve as realistic an evaluation as is possible.

The fourth level students in the collaboratives would act as project and collaborative supervisors, assistants to the resident professional, and as senior design or production persons. At least one third level design student (track one) and one third level production student (track two) would be included in each collaborative, assisting the fourth level students by working as team members on design, concept, visuals, records, estimates, mechanicals and production.

The second level students would work on a non-assigned basis, experiencing both design and production in order to determine which track they prefer as their specialty. The process would allow each student to be exposed to cross disciplines without prejudice.

The resident professional could organize the apprentice collaboratives in different ways with respect to the characteristics of various assignments. Thus each collaborative would experience not only the design approaches of three different professionals in as many years, but also exposure to several different student groupings.

Projects would be real problems with client contact, conceptualization, deadlines, production requirements and cost control.

Figure 1

Academic/Conceptual
Semester Two

Level Four
(students alternate semesters)

Collaborative—Design
Semester One

Collaborative—Production

Academic/Conceptual
Semester Two

Level Three
(students alternate semesters)

Collaborative—Design
Semester One

Collaborative—Production

Academic/Conceptual
Semester Two

Level Two
(students alternate semesters)

Collaborative
Semester One

Level One

Foundation Program

Drawing
materials
observation
perspective
conceptual
life
mechanical

Color
theory
applied

Conceptual Thinking
eastern thought
word/image articulation
western thought

Design
line
texture
value
materials
form
space

History
history of art
history of design
time line/human ties to history

Decision Points: Review Committees advise students in course of action. After foundation program, students alternate between collaborative and academic/conceptual studies.

Insert One

Level One
Drawing
  materials   conceptual
  observation   life
  perspective   mechanical
Design
  line   materials
  texture   form
  value   space
Color
  theory
  applied
Conceptual Thinking
  eastern thought
  word/image articulation
  western thought
History
  history of art
  history of design
  time line/human ties to history
Level Two (students alternate semesters)
Semester One
  academic, conceptual, directed studies
Semester Two
  practicum: resident professional
  team approach non-assigned
Level Three (students alternate semesters)
Semester One
  academic, conceptual, directed studies
Semester Two
  practicum: students select creative or productive emphasis
Level Four (students alternate semesters)
Semester One
  academic, conceptual, directed studies
Semester Two
  practicum: students apprentice and assist resident professionals

Larry Cummings
Sophomore, Photography

On the alternating semester, the collaborative students would return to the traditional academic program and the other half of each level would be organized into collaboratives apprenticing to a new group of resident professionals. The emphasis in this semester would be on traditional academic and aesthetic studies with strong encouragement in areas of research, conceptualization, and personal experimentation. Design related study would be based on the case method of problem solving.

Although we have conceived this model specifically for a graphic design program, it will adapt easily to any of the design disciplines — or, more importantly — the cross disciplines. The model also allows for some of the fourth level students to leave the institution on a traditional apprentice program in either the creative or production fields, should an especially beneficial program become available.

Conclusion
The overall philosophy of this alternative program seems to us a logical departure from the academic straightjacket of current design education. It provides an opportunity for students to develop professional competency through exposure to working professionals, involvement in design

oriented problem solving experiences and the reality of advancement based on successful performance.

The professionals would also benefit from the exposure to new thought processes they have not experienced before, or have long taken for granted. This experience could be as rejuvenating and rewarding for the professionals as it could be for the students, allowing them the luxury of stepping back to those times which some have cited as their most creative, challenging, productive and trend setting.

Graduating students would be armed not only with a B.F.A., but with the ability to find a position in the field — and the broad training experienced in this program would open a wide range of career choices. It is this multiplicity of choice which underlies the program. The practical, total problem-solving experience gained in our proposed collaboratives would enable graduates to adapt to the changing problems and technology of the future.

Any curriculum is dependent upon those who implement it — the faculty. That is why we propose a faculty of working professionals. Students will be getting realistic information from people who are teaching what they are in the process

of doing. This constant interaction with professionals can only accelerate the student's progress in acquiring professional status. And the synergistic effect of several projects going on at the same time under the supervision of various groups can result in an atmosphere of excitement and purpose.

Our objective is to focus on each student's ability for personal expression and to help him or her find a way to use his or her talents to enjoy life and earn a living. Finding satisfying jobs has proven difficult for many people who do not have marketable skills upon graduation. Design schools must continue to be relevant to careers while encouraging personal expression and directing it in useful channels. If imagination is strengthened by discipline and experience, the energy of the creative approach can in great measure be preserved throughout a career. To us, this constitutes a rational approach to design education.
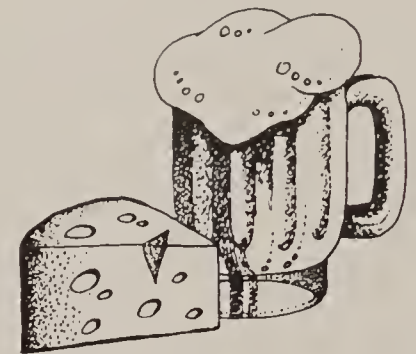
Larry Cummings
Sophomore, Photography

Tom Scally
Senior, Photography

Of Winds and Strings

Kiting over Franconia Notch, my five-pointed
body frames the gold and blue stretched silk.
Warm air rising bellies my cloth. wells me up
above farm-studded valleys, flashing ponds,
and full-fleshed woods. The land spreads out in patterns
of shape and hue: The steely glint of streams
divide long furrowed patches of green-flecked browns
and pastel yellow-greens; grey veins of road
snake through alternating dark and middle greens
of hills; at crossroads white boxes cluster.
I come up level with the Kinsman Ridge—
stark beiges and greys dappled with green. A falcon
hovers on scimitar wings; we eye each other.
It drops its gaze, folds its wings, and plummets.

My string grows taut. I am pulled—down,
down, down, down. I see the top
of our hill, the barn, the house. I see you
standing on the hillside pasture above
the cornfield, reeling in. I lose my balance.
Head down, I crash. Wobbling, rise again.
Again, flip, head in to earth. Another loop—
still upright, I shift my head and center downward,
raise my arms—
            And catch the wind! Split second
gusts me higher than Kinsman shoulder.
Afternoon pink catches the west slope
of Washington below and to my left—
I'm over Lafayette, looking down
into the Notch, Cannon and Kinsman to right,
sighting along the highway: near the horizon
it widens and straightens as it defeats the woods
and the hills on its way south to Boston. Distant
to my right, past Sugar Hill, I sight the ridge
that stands above our place.

            Slight Pressure
on the string brings terror—if it breaks,
backside to the wind I'll tumble, right
across Maine to drown in the sea, or ride
the jet stream forever. Terror turns
to joy with the holdfast of the string:
I am a creature of earth and artifice.

The stringless falcon comes again and wheels
around my tethered flight, sketching on the air
designs and patterns with his turns and dives.
that speak of whirling voids, dark mysteries.
It drops once more to earth—to eat? to rest?

The face of Washington grows dark: reel in
and ground me gently. I would speak,
tonight around our fire, of winds and strings.

C. P. Campbell
4/7/75

Amoeba

amoeba

During the fall of 1974, in the interests of a wider professional learning context, Professor Harris Barron, founder and head of the Studio for Interrelated Media (SIM) made a proposal: an All Media Open Exchange By Artists (AMOEBA). Barron's idea was to expose his students and their concerns for time/space eventworks to the diversity of work by artists at other institutions—an intimate and reciprocal sharing of philosophy, method, and resource.

This "School Without Walls" meant that each participant would enjoy a wider contact with those interested in related disciplines (static/dynamic, visual/ aural, performance/environment, etc.). AMOEBA also meant two-way travel on a difficult professional street— taking completed works on the road. Students would be setting up and performing works in a new and different setting for a different audience, as well as providing a quality professional climate at home to receive groups from other participating institutions.

Planning and realizing complex works that travel requires a great deal of effort. We sensed the value of the learning situation which extends beyond the classroom. The opportunity to reconstruct performances or environmental works in a distant area provides experiences of decision-making

under the very real presence of an exhibition schedule. These experiences would be recycled throughout an artist's professional career. Any exchange of creative insight, information and energy, sharpens perception, generates new ideas, and most important, builds confidence. Project AMOEBA brings to the arts the expanded contact and comparison that intercollegiate sports has brought to athletics.

AMOEBA proposals were first sent to faculty and department heads of colleges in the New England area with studios relating to the "visual theatre" activities of the Studio for Interrelated Media. Responses from Alvin Lucier's group at Wesleyan, Gerald Shapiro at Brown, Donald Burgy, Media and Performing Arts Chairman at the Massachusetts College of Art, and Otto Piene, Director, MIT's Advanced Visual Study Center, were immediate and encouraging.

In the first AMOEBA exchange the Wesleyan University Electronic Studio presented a concert of new music and audio environmental works on April 11, 1975, and the Massachusetts College of Art. The program included "Art, Artistry and Artness" by Marc Grafe, "All the News That's Left in Print" and

"Pea Soup" by Nicolas Collins, "The Circular Rooms" and "Mr. Kuivila's Density at the Fourth Rung" by Ron Kuivila.

Professor Gerald Shapiro, Director of Brown University's McColl Studio for Electronic Music, initiated a Mass. Art AMOEBA exchange at Brown for May. "Shep" Shapiro had previously composed audio scores for the ZONE visual theatre group's productions (Computer Theatre; The Yellow Sound—premiered at the Guggenheim Museum; and others).

At the regular weekly SIM meeting we were asked to commit ourselves to planning for the performance at Brown. Seven artists responded with titles for original works which were submitted to Brown for the playbill. These pieces were evenly divided between those which had already been performed at the Massachusetts College of Art that year, and improvisational works that had their roots in earlier pieces, but were tailored for our Rhode Island excursion.

Scheduling plans for the trip were begun months ahead of time; once chosen, measurements for Sayles Hall (the approved site) were taken, photographic studies were made, and a staging plan to make optimum use of the available space was drawn. Sleeping quarters were not required as the entire affair was to
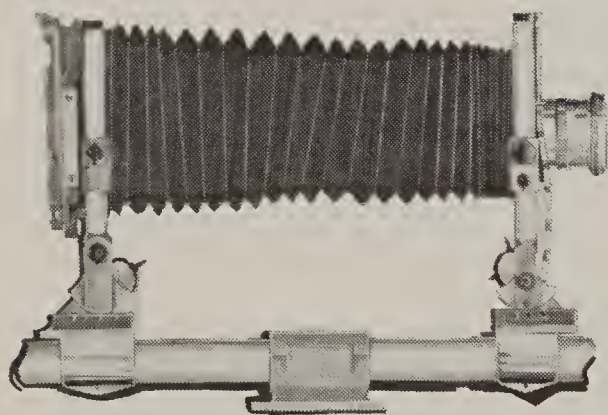
Ferranti-Dege, Too

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be accomplished within a 24-hour period of intensive effort.

As host, Brown provided us with publicity, an audience, a high amperage theatre lighting power supply specially installed for our performance by University technicians, and a 4 channel sound system through which live electronic audio generation and tape recordings were presented.

The day prior to leaving, we provided Brown with a parking list of our vehicles and, following an equipment-tour inventory developed for a SIM production event at Boston's New City Hall (in celebration of MCA's centennial), collected the combined mass of stage props, lighting instruments, hardware and scaffolding needed for the works.

I arrived at MCA early on performance morning, knowing that we would not return until the following morning. Various people had fallen asleep in odd corners of the building, after having worked through the night to assemble our "hardware." Harris brought the large U-Haul truck, rented that morning, and parked it by the loading dock. A senior, Mark Drobnis, was put in charge of loading three tons of stage and lighting equipment into the truck, which just barely held it all. About a third

of the way into this heavy work procedure, the skies opened up, but we continued with the chore of packing. Really heavy items—large yellow touring boxes on casters containing our cables, lighting instruments, a powerful strobe unit, power supply for the lighting dimmer, and more—were rolled up and out of the auditorium, through the gallery, and down the elevator to the loading dock. Everyone and everything was soaking wet.

The bulk of our properties carefully packed, now a period of inertia began. A few people worked in the rain, putting the final touches on the truck, and the majority adjourned to the auditorium.

We rolled a caravan of actors, dancers, musicians, and technicians out of the parking lot in five cars and a truck, making our way through Massachusetts in a drizzle. As we neared Rhode Island, the skies began to clear.

At Brown we backed the truck into the main entrance of Sayles Hall and began filling the performance space with the truck's contents. It was decided that we would need a greater stage area in which to work, so the first rows of existing seats were dismantled. The scaffolding went up in six-foot sections, and rose to a dizzying height of 42 feet, permitting a special trap to be mounted

on the high rafter along with an electric trigger. This scaffolding was then reassembled in shorter sections for lighting towers and rear projection screens.

Mark Drobnis (MCA, class of 1975, now doing graduate work in the "Expanded Arts" program, Ohio State University at Columbus) had two pieces in the AMOEBA production: *Assault* and *Hot Dots*. Each involved a quadrophonic score in which audio events evolved into a pattern of high intensity or density, at which point a visual event occurred.

Assault consisted of screams in total darkness, and a projected film of an open screaming mouth. *Hot Dots,* also performed in darkness, consisted of the fugue form sound of bouncing superballs, reaching a climax, an incredible burst of light. Immediately over a thousand superballs, phospher-painted, and charged with hidden ultra-violet light, were released into the blackened space. After the performance, children took them home.

Mark Drobnis and Ralph Iasiello assembling portable rear projection screen designed and built by SIM for use in live performances

Dean Nimmer's "Flaming Commancheros"
by Shelly LaPlante

"All right, please remember that it's the real thing this time. One, two, three . . . GO!" And the Flaming Commancheros, led by the inimitable Dean Nimmer, went out to perform the most improvised improvisation ever witnessed.

The "before" and "after" periods of the performance were curious. We met at one o'clock on the day of the performance, ate lunch on the hood of someone's car, and got terrible directions to Providence (we got lost en route).

Arriving at Brown, we took an hour to roam the campus and feed ourselves. At 4:00 P.M. Dean called us together for rehearsal on the green. The Brown students who watched us no doubt considered us insane, but promised to come when we talked up the AMOEBA production. After rehearsal, we helped Harris Barron's crew set up stage scaffolding and tape down electrical cords.

The period immediately before the eight o'clock performance was spent applying make-up, doing mime work on campus, and running to the drugstore (made up as clowns) for cold cream. Tension was high, and the rest of the waiting time was spent being jittery. When the time came to perform, we were ecstatic.

The performance was an example of how well a group can work together and adapt to a foreign situation; a make-shift stage, an ever-so-slightly miscued tape (my fault), and our very first tour! After the show we celebrated as a group and tried to calm down for the long trip home. The experience was so intense, it is hard to imagine it soon repeated.

Ralph Iasiello's "Nargoyle"
by Joel Rubin

An attempt to present "Nargoyle" mechanical culture as a reflection of technology. The film, through animation of life-sized plastic mannequins responding to technological assault, asks the question, "How much of a 'nargoyle' are you?"

Jane Pavlovich plotting logistics for her *Simple Movements* piece

The life support system of a theater group—three tons' worth.

SIM transforms Sayles Hall

Joel Rubin's "Paper Piece"
by Joel Rubin

A sheet of heat sensitive white paper is unrolled across the proscenium as tall as the artist's reach and twenty feet long. I attach a rainbow cable to my arm, providing a link with the audio synthesizer, light a propane torch, and make a blue drawing accompanied by a shadow of sound generated by, and synchronous with, my actions. Ron Wallace, on guard, goes crazy with the fire extinguisher because the paper catches fire repeatedly when the torch gets too close, but I put out the fires with my hand, sometimes tearing the paper. The torch frequently blows out; a man in the front row relights it and I go on to finish the drawing. During the intermission, I am helped to roll and store the paper. I got feedback from an audience who approached me with points of view that I'd never encountered before, I had the opportunity to review my performance over the videotape recording and through photographs which broke the experience into separate components, the videotape through which I saw the performance (which I could then relate to the comments I'd received) and the drawing itself (which was recently stolen). Producing *Paper Piece* at Brown University forced me to develop an idea into a working performance piece.

Jane Pavlovich's "Simple Action"
by Joel Rubin

Simple Action was performed in the city of Providence, Rhode Island. Dancers repeated simultaneous movements: walking, leaping, continuous turning in and out of the viewer's line of sight. This piece was performed for videotape using sites such as highway interchanges and parking garages in and around the city.

Ron Wallace's "Complications"
by Ron Wallace

This piece was largely influenced by my experiences in performing and reading works loosely termed as "Theatre of the Absurd." It was conceived as the second part of a trilogy dealing with contemporary situations and dilemmas. The performance utilized six actors who functioned on many levels: characters, members of a chorus, dancers, and physical objects on stage. The words used by these people took the form of pure ideas lodged within inverted cliches and absurd dialogues. The content and meaning of each specific phrase could not be considered complete; the piece had to be appreciated as a whole to be meaningful.

Complications was first performed in April, 1975. The stage design consisted of one large scale and several modular cubicle shapes on a jet black field. These simple objects were easily manipulated by the performers to create structures and sub-structures in the theatre space. Light projections and original audio tapes were used to provide impulse and motivation for actions by the performers.

Complications was conceived on a purely personal-choice basis. As director, I controlled every aspect of the performance, leaving no room for improvisation on the part of the performers.

Striking the set from midnight to 4 A.M. involved removing greasepaint, sweeping up crushed Cheerios, disconnecting main electrical and lighting cables, reconstructing rigging and scaffolding, reviewing videotape, coiling rope, packing fragile electronic equipment, folding an enormous piece of paper, collecting hundreds of nuts and bolts, carrying, wheeling and condensing the material into the truck for the return. I remember it as a blur: climbing the highest scaffolding we had ever built to free a rope caught high on a massive beam (so that I shook and the whole scaffolding swayed with me as I swung the rope).

"An Ode To A Semester"

Students are not my favorite animal
To me they're too ephemeral

They take themselves so damn serious
It leaves me quite —delirious

But alas, they are such patient things
I must accept their wanderings

So I guess I'll try to be better
Than I was —just last semester
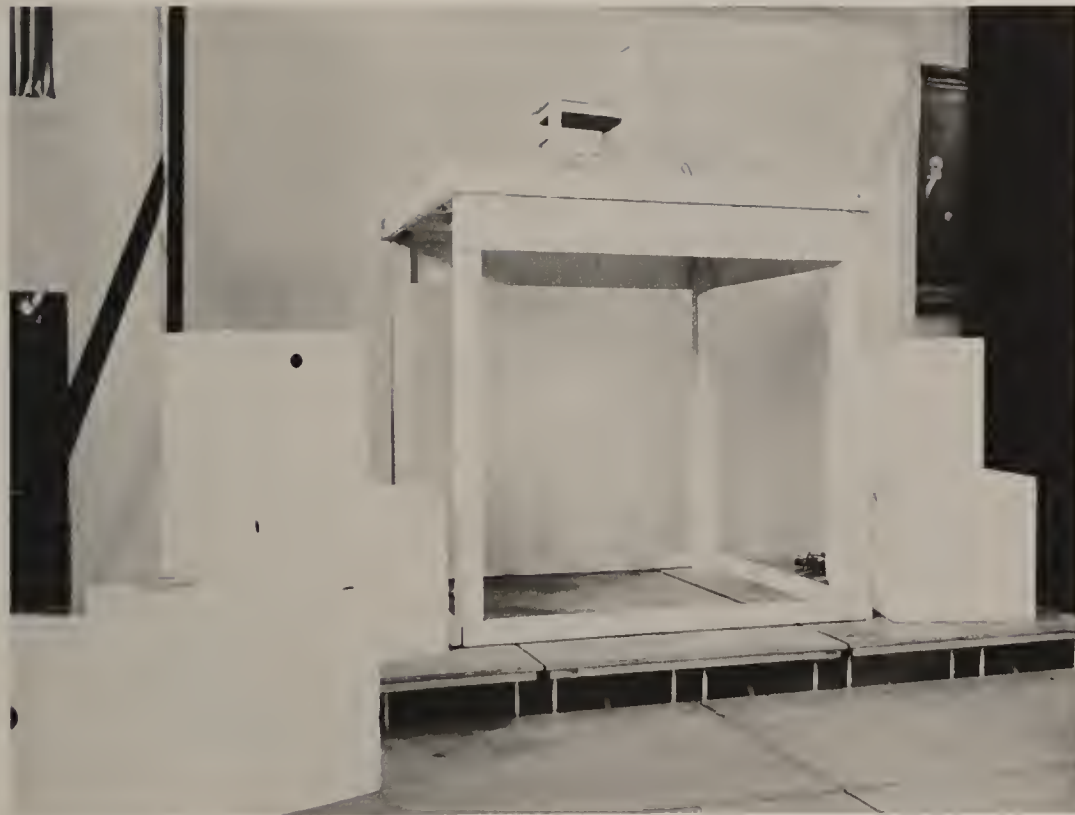
Set used in the performance of
Complications

"The AMOEBA trip to Brown was an important learning experience for SIM. It required that performers accustomed to a proscenium stage, find practical solutions for the real problems of taking their work to a radically different area; in this case a mock-cathedral.

Complications, the piece in which I performed, required major revision of choreographed movement and blocking for presentation at Brown. The acoustics of Sayles Hall also necessitated that we find ways to deliver lines at greater volume without a corresponding loss of nuance.

The experience at Brown tested the endurance and adaptability of the group by demanding that we respond to the pressure of an impending performance." —Dennis Volpini

It took me some days to realize that not only had we "performed" in many ways, but that we had also lived the potential of AMOEBA.

April, 1976, will see a major undertaking in the very best spirit of AMOEBA. A simultaneous stereo telephone will be rented to connect Brown University with MCA for thirty days. After two weeks of experimental collaboration, simultaneous multi-media performances will occur with each location feeding parts to the other from forty miles away.

Audio signals originating in Providence can trigger visual responses in Boston, along with works created from each end of the line by artists communicating non-verbally, with only the formal elements of their art.

A pure audio work will present the resonant frequencies of various sub-structures at MCA's Longwood Building, the building itself being the musical instrument. Specific sounds within its resonating walls will be transmitted to another space in Providence which will in turn reciprocate with its own environmental music.

The "O" in AMOEBA is real. Any artist or institution interested in participating in these exchanges is welcome to contact the Studio for Interrelated Media, MCA, Boston. Support for this program is sought from persons and foundations interested in the arts and education.

The contributions, grammatical experience, editorial fiat and typing of these SIM friends was invaluable: Laurie Barmack, Harris Barron, Ralph Iasiello, Shelly LaPlante, Dennis Volpini, and Ron Wallace.
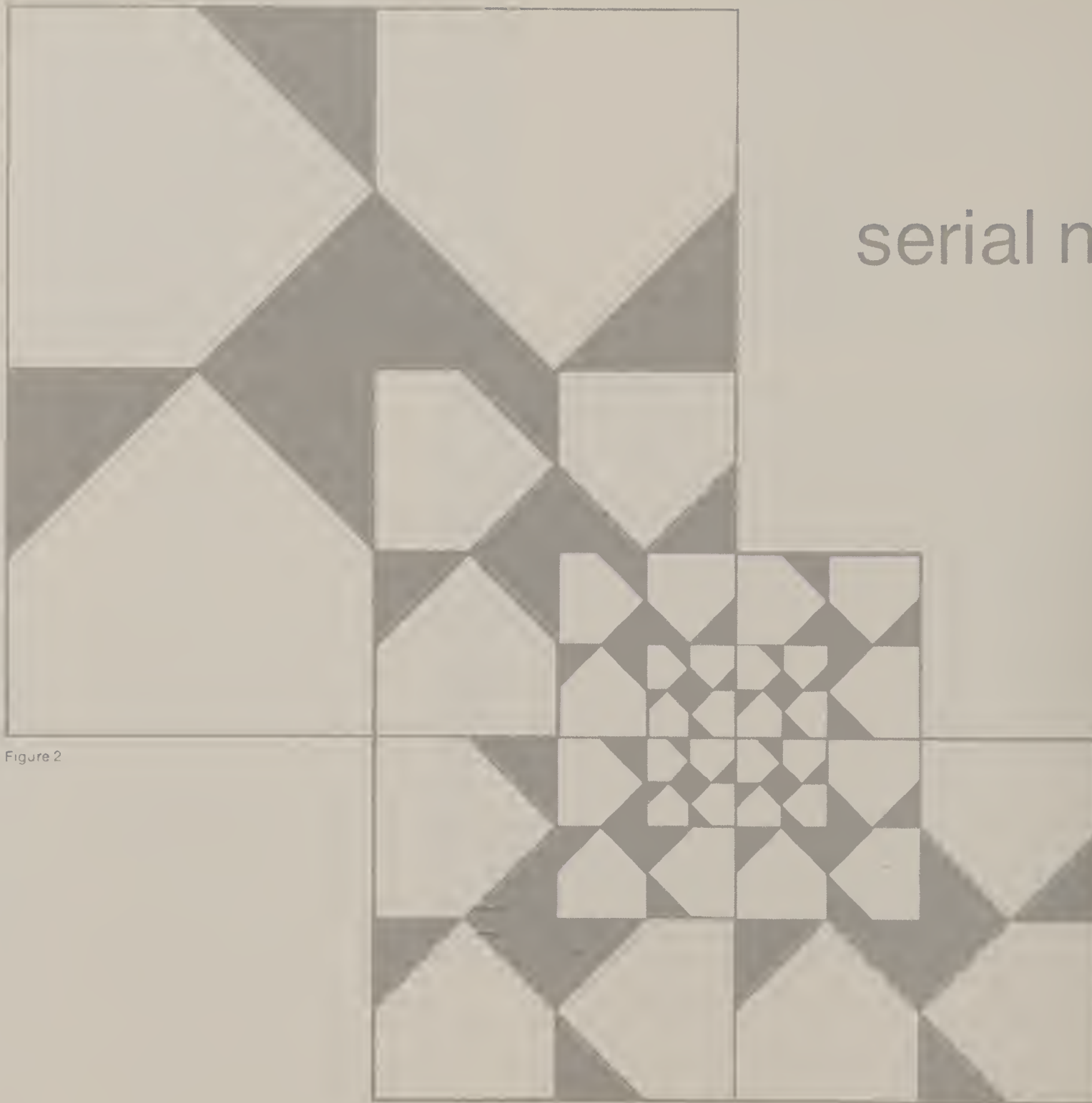
Figure 2

serial notes

by david dobereiner

Assistant professor of Architectural Design

on the dialectics of design

The following is the first draft of the opening pages of a book still in process of writing. The manner of presentation is influenced by Wittgenstein's 'Philosophical Investigations.' The content is an analysis of the design process in terms of Hegel's dialectic. The final draft will incorporate more graphic diagrams. The remainder of the book will develop the particular complexities of contemporary design and architecture. It will attempt to expose the close relationship between centralization of power in the state and in the corporations of the 'free market' economy, alienation, the prevalence of inhumanly designed environments and frustrated designers. It will show that these contradictions arise inevitably in massively centralized systems when we consider the universal attributes of design process. In the process it will demonstrate the inadequacy of any design theory that fails to clarify this.

1.
Essentially, the design process is that form of thought in which the object of a subject's thinking is a change in its environment. The change itself we call the design. So the design process, properly speaking, cannot be said to have occurred until its result has been communicated. Thought by itself, even purposeful thought, cannot be called design process until it is expressed, at least verbally. But a sentence spoken out loud is already a design (though a minimal one) because it has changed the environment of the subject and its prior formulation can then be said to have exemplified design process.

2.
The life of the mind pre-supposes the self-consciousness of the subject and its awareness of the surrounding environment. The attempt to reconcile these two fields of force is the constant endeavor of mind which encounters resistance to the unfolding of its subjective powers from the objective world outside itself.
This endeavor involves:
   1. Reflection into memory (experience)
   2. Ideas, plans
   3. Implementation of plans (action)

3.
But the word 'resistance' really refers to a state of affairs characterized by the *absence* of something. It is the negation of the well-being of the subject. The resulting act is 'designed' to render present that which is absent. The result of the act is, therefore, the negation of the negation. The resulting state of being is a synthesis of the original negation and the act it precipitates. A change in the environment favourable to the subject occurs, one that thereby changes the subject also and the new subject/object relation gives rise to a new negation and so on to 'higher' levels of synthesis. Such is life.

4.
We have therefore, a cycle, commencing with a specific negation and ending with the negation's negation. Thus: (see figure one)—
The white arrows in the diagram indicate the direction of flow. The whole square that the diagram comprises can be thought of in all the following ways:
   1. One complete cycle of the design process.
   2. The negation of the negation.
   3. A first synthesis.
   4. A *new* negation, the trigger for another cycle.

5.
In practice design problems do not yield to one cycle but commonly require many successive steps, each attaining a higher level of synthesis. Design is an *iterative* process. Each cycle becomes the point of departure for the next and becomes incorporated in it as the new negation: (see figure two)—

6.
When does such a process stop? It continues until the energy in any of the four phases becomes inadequate to activate the next phase. For example, the *negation* might be reduced to an acceptable level. Memory might become depleted of stored data, all of it having been used, in which case the system would be stalled in the phase of *reflection*. The subject's powers of *conception* could become exhausted. Or *action* could be slowed for lack of some necessary resource.

7.
Also common are clusters of negation calling for simultaneous treatment: (see figure three)—

8.
So far designing has been described in its most rudimentary form. We have assumed the designer, the client, the manufacturer and the consumer are all the same person. The single word 'action' has stood for all that lies between conception and actual realization. It is paleolithic design.
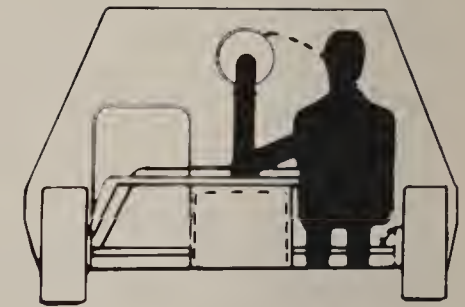
Phillip Delaney
Senior, *Industrial Design*

9.

For example, consider the following saga: There is a very heavy snow storm such that six feet of snow lies on the ground for ten days, defying the heaviest ploughs. A family needs food but the roads are impassable, even on foot. A man goes into the basement and ties two oblong pieces of ¼ inch plywood onto his feet. He walks out and finds that with each step the plywood buries itself deeper and deeper in the snow. In four steps he is immobilized. He returns to the basement and drills holes all over the plywood. He tries again but the front edges still tend to dig in the snow. He returns to his workbench and rounds off the front edges and relocates the foot lashings nearer the front. He tries again and one piece immediately breaks as he tries to span a depression in the snow. He returns to the basement and starts again with new plywood, drilling the holes and finally stiffening the edges with a piece of aluminum extrusion which he allows to taper out into a tail in the back which he believes will tend to lift the front edge up. He finally walks happily to the grocery. He has reinvented the snow shoe.

10.

Let us analyse this little drama in the terms of our model:

Negation 1	The subject cannot walk because his feet sink into the snow.
Reflection 1	Loads need to be spread over a larger area when surfaces will not support them.
Conception 1	Large flat plates strapped to his feet.
Action 1	Goes to basement. Finds pieces of plywood. Straps them to his feet. Tries walking on snow.
Negation 2	Snow covers plywood, making them heavy, they sink further and pick up more snow. Still cannot walk.
Reflection 2	Spoons hold soup. Forks do not. But forks can compress mashed potato. Snow is a little like soup and a lot like mashed potato.
Conception 2	Holes through plywood.
Action 2	Drills holes all over plywood. Walks.
Negation 3	The sharp corners of the front edge on the plywood seem to catch in the snow forcing the plywood to behave like a shovel.
Reflection 3	Round things do not get caught up in other things.

	Lifting things near one end will cause the other end to drop (lever arm).
Conception 3	Rounded fronts. Feet near front. Long tapering backs. Will slide over snow not dig into it.
Action 3	Carries out conception 3. Walks.
Negation 4	Plywood breaks over hole. Still cannot walk.
Reflection 4	Thick beams take heavier loads than thin ones.
Conception 4	Frame the plywood with thicker and stronger material. Keep the holes.
Action 4	Carries out conception 4 - aluminum extrusions. Walks to grocery store.

11.

Negation. It has been said (3) that well-being is negated. In the example (10), the specific form of well-being is the ability to walk on snow. But this ability is challenged by four successive negations. So there is an aim that remains constant throughout all the cycles of a particular design process. This constant aim, a local manifestation of all the factors pre-requisite to well-being, is called the 'notion.' It is as important to grasp the notion of the 'notion' as it is to grasp the notion of its negation, or the notion
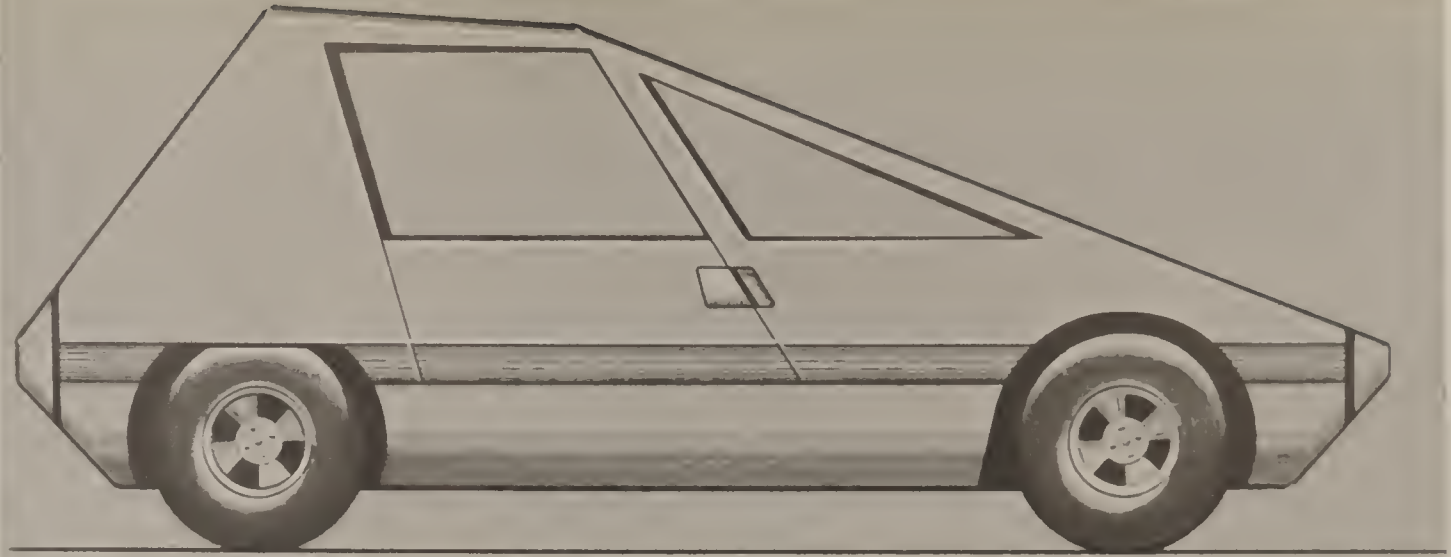
Figure 1

(Figure 1 labels: negation, reflection, conception, action)

of the negation of the negation of the notion.

12.
The notion of walking on snow is a particular aspect of the general notion of walking. The general notion of walking is a particular aspect of the general notion of movement. The general notion of movement is a particular aspect of the general notion of freedom. Freedom is the universal notion of life. Freedom is of the essence. The determinate notion that underlies any design can always be analysed in this way, through a series of steps, as an aspect of the Universal freedom.

13.
It has been said (6) that the energy level in any phase of the cycle determines when the process stops. In (10) it would appear that it is the negation phase that becomes exhausted after four cycles. The process appears to come to a final conclusion with the act of successful walking on snow. But this is never so. Design conclusions are always provisional. It will be found that continued use of the snow shoes will reveal inadequacies leading to new negations and a reviving of the design process.

14.
The notion that impels a design from prototype through successive levels of refinement to archetype is often itself of a far more profound type than the one that originally generated it. Archetypes themselves become more obsolete when the notion that generated them escalates to a more generalized form.

Walking on snow may escalate to the notion of moving fast over snow, suggesting huskies and sleds, or moving still faster, bringing about the skidoo. Each of these inventions can be seen as a product of the same basic notion confronting the same negation, but at different levels of consciousness of freedom.

15.
Reflection. In (10) the physical principles that are 'reflected into' are part of the subject's previous experience or are intuitive knowledge. In more evolved design situations memory has to be *primed* for the occasion and this is what is referred to as 'research.' But note, only the data that is absorbed in the designer's *memory* and *reflected into* can become part of the design process. *Books and files of data remain inert and useless to the extent that the mind of the designer has not the capacity to retain and use them.*

16.
Computers have little relevance to this problem. Team work and 'brain-storming' have little relevance to this problem. 'Data retrieval' may be facilitated by such devices but the spark of the design process is the conception and conceptions come *only* from individual minds. The quality of a conception is proportional to the richness, depth, intensity and pain experienced in the reflective phase. There are no short cuts.

17.
Conception. Trying to conceive a design solution is like trying to remember someone's name. The answer usually *floats* into consciousness after we stop worrying about it. For this reason it is very common for conceptions to arise on waking from a night's sleep.

18.
The often conflicting constraints that arise in the negation/reflection phases lead to a monumental deadlock where we cannot see an answer and also cannot see how ever we will be able to see an answer. At such critical junctures conceptions float effortlessly into consciousness after sleep. Conceptions are *born* in the unconscious out of the *labor* of matching reflections to negations.
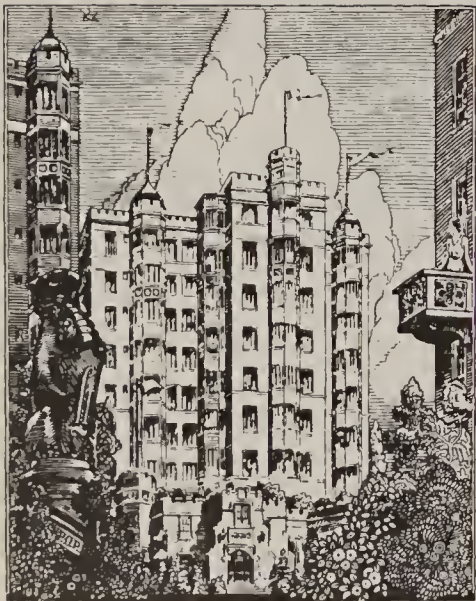
19.

But the metaphor of birth breaks down when we consider the *cumulative* and re-cycling aspects of the process. Conceptions born in the morning after sleep are usually translated into action in the form of a designer's scribble. By the late afternoon a new negation looms up and the worried designer goes to bed deadlocked again. The designer often works on a *diurnal* cycle, each day bringing a new negation, but also a new level of synthesis.

20.

Action. In (10) each 'action' phase is an actual realization. In the modern world realization usually occurs only as the last phase of the final synthesis. All other stages of 'action' are either designer's scribbles as in (19) or more frequently yet, purely *conceptual*. A complete cycle, or several complete cycles could take place entirely in the mind of the designer.

By 'action' is meant the movement of a conception into the negation. *The conception is tested in action but the test can be a mental event.* Or perhaps, the conception *attacks* the negation and thus brings about its negation and the precipitation of a new one. It is important to realize that the design process cycle is most often *abstracted* from the world of objective reality

except in the stage of 'final' synthesis (although it has been shown in (13) that this 'finality' is always illusory).

21.

Even the 'final' action phase (by which we really mean the action phase completing any cycle stalled for lack of energy in any one of its phases (6)), may be an *abstraction*. An architect's final presentation of drawings and model is certainly 'final' in the sense that the last synthesis has usually exhausted the energy in all four phases. But the product is still *abstract*.

Only the constructed building will be real. But a final presentation is not as abstract as the scribbles that led up to it and these in turn are not as abstract as the conceptual actions that preceded *them*. In practice we deal in many layers or levels of abstraction in all phases and only the last of a long series of actions is a fully realized one.

22.

In present day society this prevalence of abstraction in most of our design processes lies at the root of many of our problems in design. This is one symptom of the dominant malaise of *alienation* which pervades our society. This point will be developed much further, later in our investigation.

Maparium

Entering   glass cavern   chilled   civil
Calm   Art Deco earth memorial
Each word echoes threefold
Bouncing from sea to sea.

Bright colours dance electrically:
Azure seas never ebb tides —
Africa, Near East, Europe —
Patch-in the nineteen thirty-two quilt.

Glass bridge spans six-hundred
eight fixed squares   holding borders
Sublime in their ideals.
Smiling my guide-lady explains,
"This is now preserved art work . . . "
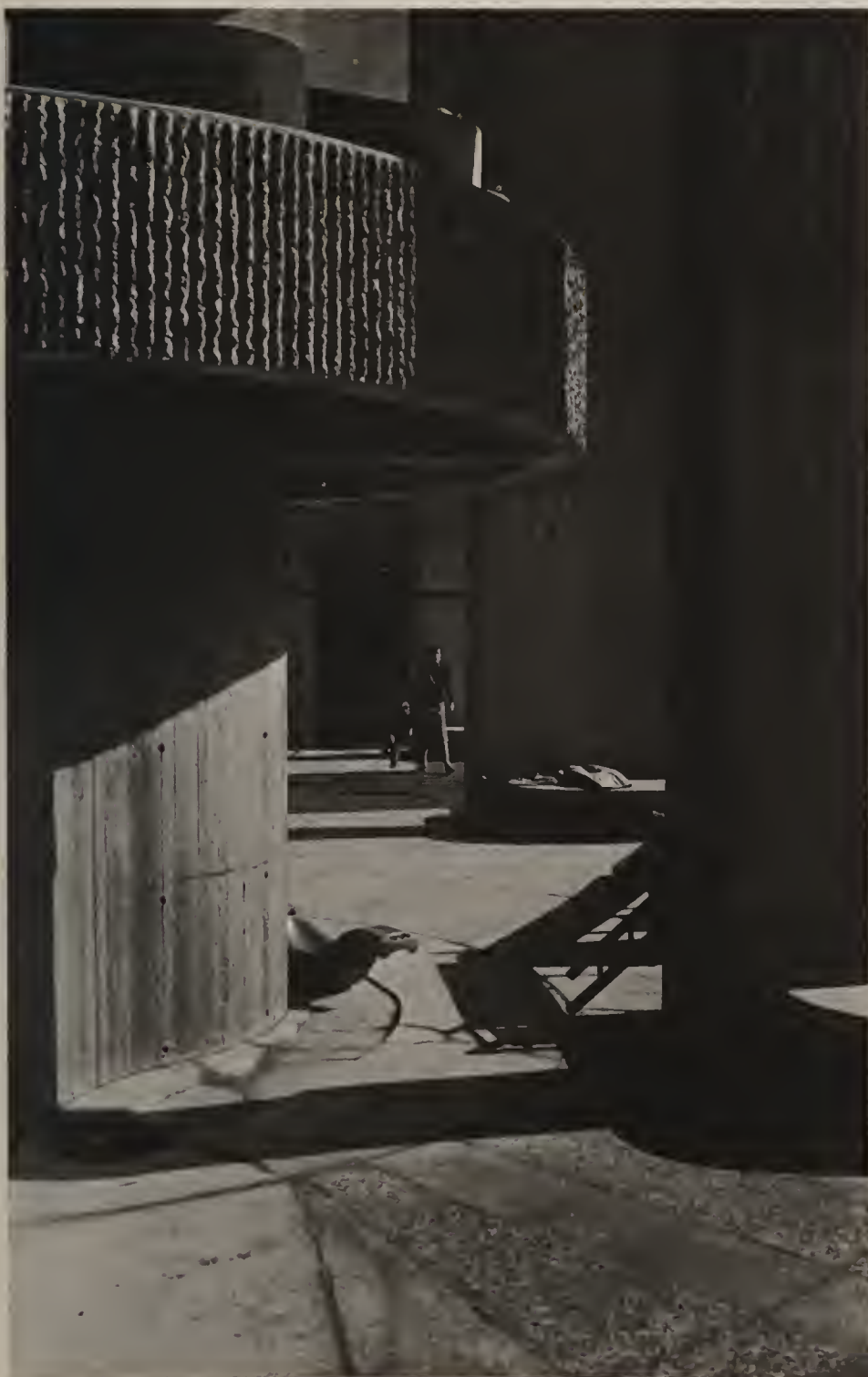*Yet she never mentions the Artist's name.*

David M. Wilhelmi
December, 1974
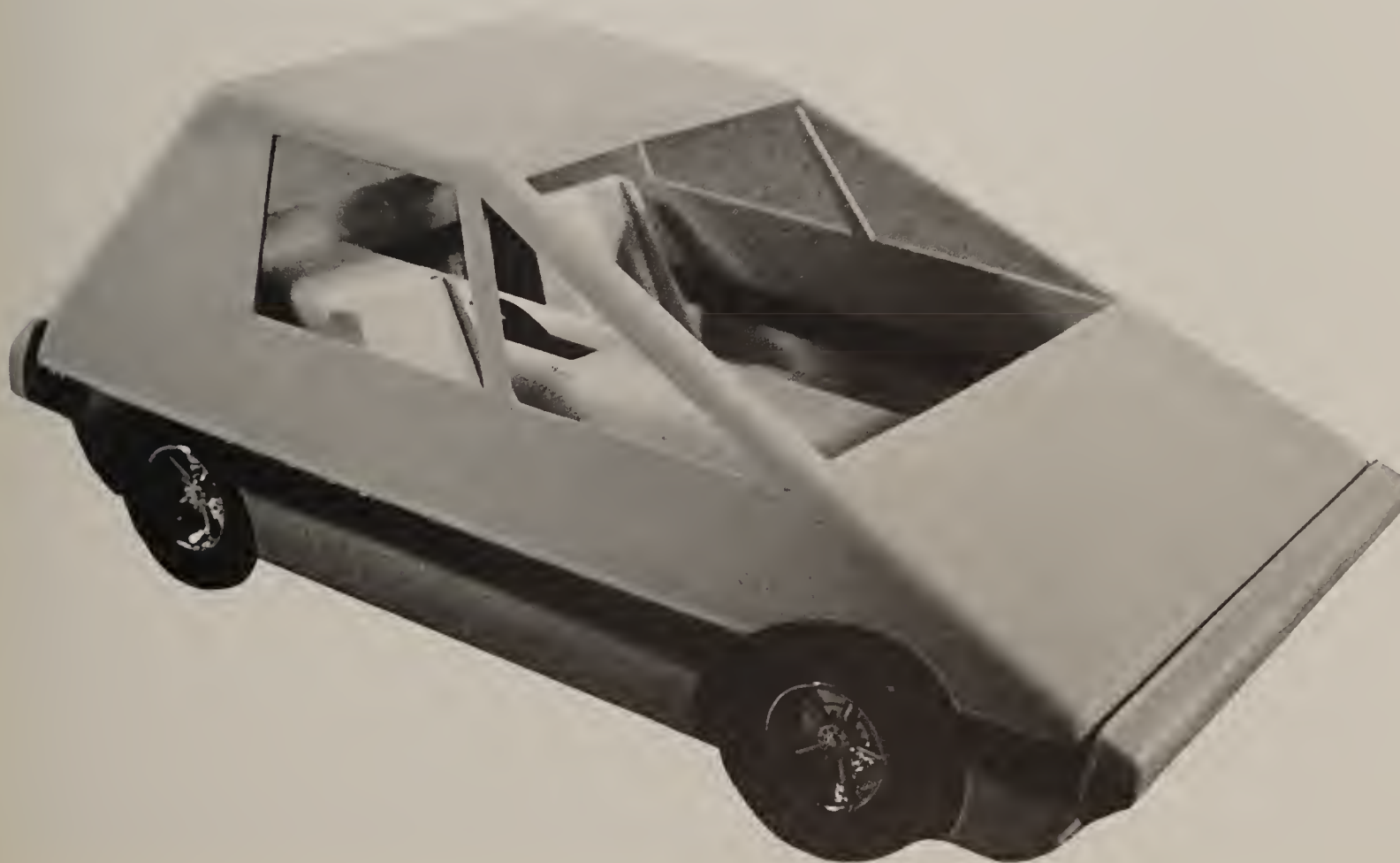
notes for a design process

*November
1975*

*a playscape for special children
Erich Lindemann Mental Health Center*

by darleen powers

Senior, Architectural Design

The space in the courtyard is little more than an outside cavern of concrete where every day dedicated staff places an "array" of children with special needs to play. Two schools share this space, each servicing district children with very different needs. The Development Disabilities Unit (DDU) is the larger with a range of multiple handicapped and retarded children ages 2 to 14. The oldest children are the least able, while the youngest are both physically and mentally more capable. Most of the children would make little progress in their development unless the Unit's extensive programs of therapy are carried out daily. Some will never progress but remain at an arrested level with little awareness of the world around them. The smaller school, the League School, is for preschool emotionally disturbed children. While most are not physically handicapped, they lack coordination, some are hyperactive, some are introverted and many utilize edge (risk) experiences to test units and abilities. Both schools demand varied space for different children at different times and at all levels of abilities. A rich ideation was necessary to build on during the design of this playscape so that the planned structure would be flexible.

From Lindemann's D.D.U. staff, Doug Carlson became a design team member doing much of the research, photography and giving the mental health expertise needed with each design decision. Our research showed a marked gap in the quality of playgrounds from totally inappropriate to well-done, in the area of special playgrounds. Our sources came from readings, correspondence, and traveling to see local examples. We found that while the constant influence of available funds affected the success of the playgrounds in every situation, the real test lay in the ability of the design to reflect the user's needs. The amount of commitment by the community, parents, staffs and children seems to be in direct correlation with the longevity of a playscape. We can deduce that a playground plan that is built without the kind of energy from the community that facilitates that process, will be considered a burden in a very short while, remain unmaintained and eventually unused or vandalized.

The task before us was one of translating the physical, sensory and psycho-educational needs of the children in order to facilitate the desired operational goals of the staff into appropriate and concurring solutions. These solutions find themselves in the architectural and programmatic terms of the existing space, its limitations, dimensions and aesthetics. The question of participatory architecture and its

I feel a need for red woods
to walk where some leaves are turning
others beginning gold.
Do you know of a wood? Could we go there?
You bring a flute, a kalimba
I will bring Rama and Krishna
to walk with us on an afternoon of early October
warm still with late summer.
This same sun built still green chapels in September
now stains rose windows magenta
scatters sienna between trees.
In such a place I would not fear perfection
nor hesitate as in the city streets
to open golden packages,
no doubt the best surprise
is the familiar, what can be recognized
as even more than resemblance
nor could we take a wrong direction
wandering in such light
There is none —no more than one that's right,
beyond these. If you know a stand of such trees
I would believe pyramids.

Jackie Cassen

relative use toward a satisfactory solution to a human condition through environmental change, could be measured in this project. Here was a captive and narrow community where the client and the users were one and the same while bridging a variety of disciplines and positions in that community. By introducing a series of seminars, the process of user participation became a reality. There was a need for the staff and designer to have a common vocabulary. By imposing a group problem solving process, we allowed the staff to move away from the easily accessible jargon of spatial solutions that do not necessarily fit into the world of 'is' but into the world of 'ought.' This new world gives each person permission to contribute to the design process, to negate the organizational hierarchy and to reduce the likelihood that political nuances would interfere with the common goal.

This process, called Synectics, includes: Wishes: Designed to initiate imaging and brainstorming without put-down; How-to's: Approximate thinking that is without scale or reality, and that evolves into specific solutions; Example: "I wish that the children would be forced to interact." "How to provide a structure for interaction?" "Build a spider's net that glistens and is as large as a net to climb."

Too often in design we 'go to the boards' in search of a specific solution which becomes too precious to rescind. The value of exploration through verbalization is not clearly appreciated as a prelude to visual design. We fear for our security; that we might be wrong, that there is no right answer is a concept that designers rarely admit. I am willing to admit the human process of 'sort and sift.' The optimization based on our real or unreal experiences limits the scope of our choices. Only through our imagination can we allow anything 'new' to emerge. Too often we chase the 'new' idea away, afraid to test it against the real world we know. Through a group process, this human frailty is reduced by imposing rules that make any idea acceptable and any solution possible. The end design will provide a beginning; the gap between designer and user lessens; and the reflective design is a natural progenator of generative design. There is a responsibility not only to reflect the needs found in old spaces, but also to generate new behaviors in new spaces.

After the initial conceptualization, researching, and participation— observation process, the schematics of the design become clear. The design phases include three modules that are
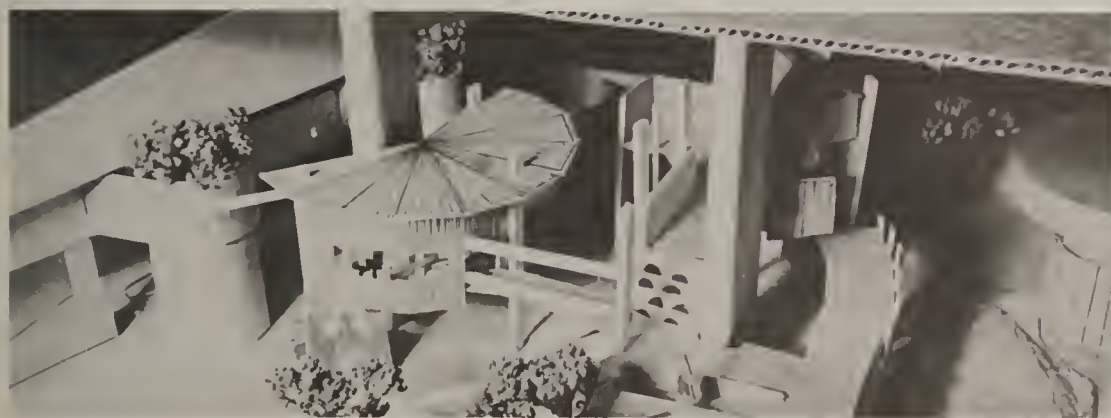
functional unto themselves and to the whole. The playscape is divided into clear areas with paths and boundaries as connectors: open play, quiet play, building play, and motor coordination play. Integrated into these areas are the reality of interaction. The climbing structure accommodates a course that a specific level child can take, giving that child a wide range of experiences with nodes that introduce choices and alternatives. These courses will be flexible by the nature of their modularity; a firm structure where parts can be changed and interchanged by the teachers. Each small decision, whether specific or general, has a responsibility towards the whole design.

The natural progression of the design process emerged with all of its eccentricities, and while the design of this playscape has constantly met the needs of the children in terms of behavior and function, there was until this time still a missing link. The existing playground consisted of a dying swing set, a metal dome, a wood house, and a rubber pool of sand. Meanwhile the staff was getting anxious "to have something out there," and they had been under unusual stress from working at reduced staff levels and feeling the state's economy pinch. It was tempting to fulfill their demands, though I knew that within the structure of public administration we would attain the best results through a unified effort including a clear plan presented through the appropriate channels. This feeling about expediting the project and the fact that the staff has had little opportunity to improve the existing space, makes me think that the space had become a bit of an albatross.

It is my hunch that no building has been done because the immensity of the Lindemann Center, designed by Paul Rudolph, denies small scale input. Tension is created by never ending curves, the giant columns that loom over the courtyard, turning it into a concrete cavern. Short of a master plan in harmony with the building, ad hoc construction would be little,

nonsequential, and elusive. That was the design's missing link: a consideration for the harmony or the discord that an architectural solution, in the form of a playscape, would bring to the existing structure. I therefore set out to unify the behavioral and functional needs within the aesthetic context. It would retain the harmony of the horizontal curves, reflect the small verticals of the concrete ridging, and evoke a contrast with the environment through the use of greenery, wood, color and multiple textures. The fifth dimension would allow for inventive programming, including planting gardens, graphics, building by children, hanging banners, making tents and music. This flexibility would accommodate the change and flux in tune with the future needs of the school.

And now, after thousands of tracing papers, study models, and weeks of work, the design is finally presented to the school's staff and directors as a flexible structures game, where overlays of drawings clearly show the three phases of growth and the ability of each to provide a successful environment. There is now a commitment to the use of contributed materials in a way we deem appropriate.

Further input is asked for from the staff; but they are intrigued with the model and drawings and resist criticism.
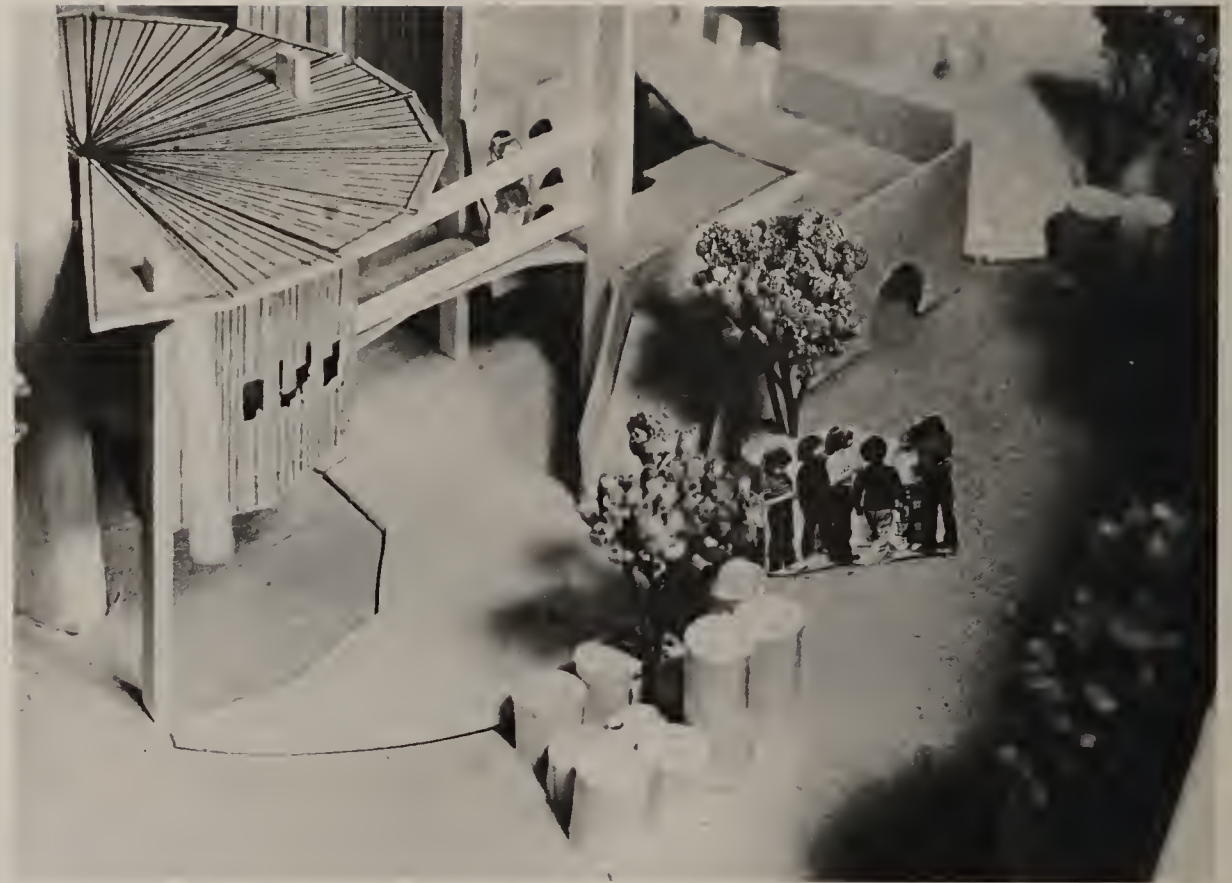
playscape goals
easily supervised areas—active, quiet, creative, open
each area articulating their function in cues
safety and durability with all seasons use
accessible storage fostering child participation
visually exciting environment with color, texture, scale
therapeutic stimulation of five senses and vestibular
intergrated playscape with course choices and nodes
modular flexibility in structure, supervised challenges
open ended building materials—children build and play
imitation—reality symbols with cognitive learning
functions to encourage body change and interaction
edge experiences demanding adult touch and closeness
special area for creative play: building, art, stage, singing
climbing and exploring structures for all levels

They will have to be prompted to criticize so the design can grow as it is built. The director is enthusiastic; fund raising is beginning. They are pleased and anxious to begin the project. Nothing less than the presented design will now do. And they ask, "How soon can the children play in the sand and the structures?"

The beginning:
Doug Carlson says he feels that this is just the beginning. He's right. The playscape will have a life of its own; a growth inspired and hoped for by the permission granted in a sensitive design process. Somehow I am pleased for all. Hoping that the political strings will remain unattached, that funding will appear. We are parents to a special place for special children.

Direction

How many forms of suicide are there?
    To quit, totally and still exist.
    To succeed yet extinguish yourself because you
       don't see your success.
    Never to leave the womb and grow.
    Never to wager your security against your
       fulfillment.
Am I really going to quit. I'm still here.
Or did I quit last year. or before I began
   or when I was a teen and sealed the shell,
Or when I got divorced (I thought I was born then).

Why, if I'm happy with my man, am I dead.
I'm not happy? Or happy fills no void.
Why do I pulsate from Da Vinci and Pollock yet
   extinguish when my sight strays off the page.

If you can't give me answers give me time.
Time.
Enough.

Trudy L. Tuttle
1/28/75

Bill Kipp
Senior, Photography